



STIC Search Report

EIC 2800

STIC Database Tracking Number: 141031

TO: Andrew Tran
Location: JEF- 7A71
Art Unit : 2818
Wednesday, December 22, 2004

Case Serial Number: 09/127625
09/989,470

From: Darcy Bates
Location: EIC 2800
JEF- 4B68
Phone: 571-272-2540

darcy.bates@uspto.gov

Search Notes

Re: 09/127,625 US 5,991,009

Attached are search results.

No U. S. litigation was found in searches of Lexis-Nexis and Questel-Orbit databases.

If more searching or explanation is needed, please let me know.

Thanks,
Darcy Bates



Litigation involving patent 5,991,009

Click on the docket number to view the docket.
Click on the above patent number to view the patent.

▼ Docket ▲ ▼ Case Heading ▲ ▼ Date Filed ▲ ▼ Date Retrvd ▲

There are no cases involving this patent number.

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Terms: **patno=5991009** ([Edit Search](#))

127625 (09) 5991009 November 23, 1999

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5991009

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November 23, 1999

Illumination optical apparatus using different number of light sources under different exposure modes, method of operating and method of manufacturing thereof

REISSUE: November 21, 2001 - Reissue Application filed Ex. Gp.: 2818; Re. S.N.

09/989,470 (O.G. June 11, 2002)

June 30, 2003 - Reissue Application filed Ex. Gp.: 2851; Re. S.N. 10/608,212 (O.G. October 28, 2003)

June 30, 2003 - Reissue Application filed Ex. Gp.: 2818; Re. S.N. 10/608,212 (O.G. June 8, 2004)

INVENTOR: Nishi, Kenji - Yokohama, Japan (JP); Shiraishi, Naomasa - Kawasaki, Japan (JP)

CERT-CORRECTION: February 27, 2001 - a Certificate of Correction was issued for this patent (O.G. February 27, 2001)

APPL-NO: 127625 (09)

FILED-DATE: August 3, 1998

GRANTED-DATE: November 23, 1999

PRIORITY: April 22, 1993 - 5095930, Japan (JP); June 11, 1993 - 5140579, Japan (JP); June 16, 1993 - 5144634, Japan (JP)

ASSIGNEE-AT-ISSUE: Nikon Corporation, Tokyo, Japan (JP), 03

LEGAL-REP: Vorys, Sater, Seymour and Pease LLP

PUB-TYPE: November 23, 1999 - Utility Patent having no previously published pre-grant publication (A)

PUB-COUNTRY: United States (US)

REL-DATA:

Division of Ser. No. 08/921311, August 29, 1997, GRANTED 5815248

Continuation of Ser. No. 08/636272, April 29, 1996, ABANDONED

Continuation of Ser. No. 08/231159, April 22, 1994, ABANDONED

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patno=5991009

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<u>and</u>	and
<u>or</u>	or
<u>w/N</u>	within N words
<u>not w/N</u>	not within N words
<u>pre /N</u>	precedes by N words
<u>w/p</u>	in same paragraph
<u>not w/p</u>	not in same paragraph
<u>w/seg</u>	in same segment
<u>not w/seg</u>	not in same segment
<u>w/s</u>	in same sentence
<u>not w/s</u>	not in same sentence
<u>and not</u>	and not

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<u>and not</u>	and not

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and not	and not
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<u>not w/seg</u>	not in same segment
<u>w/s</u>	in same sentence
<u>not w/s</u>	not in same sentence
<u>and not</u>	and not
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Query/Command : file pluspat

Selected file: PLUSPAT

Search statement 1

Query/Command : us5991009/pn

** SS 1: Results 1

Search statement 2

Query/Command : prt fu legalall max

1 / 1 PLUSPAT - @QUESTEL-ORBIT - image
PN - US5991009 A 19991123 [US5991009]
TI - (A) Illumination optical apparatus using different number of light sources under different exposure modes, method of operating and method of manufacturing thereof
PA - (A) NIPPON KOGAKU KK (JP)
PAO - Nikon Corporation, Tokyo [JP]
IN - (A) SHIRAIISHI NAOMASA (JP); NISHI KENJI (JP)
AP - US12762598 19980803 [1998US-0127625]
FD - Divsn of US921311 19970829 [1997US-0921311]
Cont. of US636272 19960429 [1996US-0636272] (Abandoned)
Cont. of US231159 19940422 [1994US-0231159] (Abandoned)
Division of: US5815248
PR - US12762598 19980803 [1998US-0127625]
JP9593093 19930422 [1993JP-0095930]
JP14057993 19930611 [1993JP-0140579]
JP14463493 19930616 [1993JP-0144634]
US92131197 19970829 [1997US-0921311]
US63627296 19960429 [1996US-0636272]
US23115994 19940422 [1994US-0231159]
IC - (A) G03B-027/54
EC - G03F-007/20T12
G03F-007/20T14
G03F-007/20T16
PCL - ORIGINAL (O) : 355070000; CROSS-REFERENCE (X) : 355067000
355069000 359619000
DT - Basic
CT - US4497013; US4497015; US4619508; US4668077; US4699515; US4747678;
US4918583; US4924257; US4939630; US5016149; US5153773; US5194893;
US5335044; US5420417; US5452054; JP4-225358; JP5-45605
STG - (A) United States patent
AB - A diffraction grating is set between a light source and a fly-eye lens composed of a plurality of lens elements rectangular in cross section, and using the zeroth order diffraction beam and +/-first order diffraction beams emergent from the diffraction grating, a plurality of light source images are formed along the longitudinal direction on the exit plane of each lens element in the fly-eye lens. In a preferred mode the intensity of illumination light on a mask is increased using first and second light sources, and first illumination beam, which is obtained by combining a beam emitted from the first light source and passing through a half prism with a beam emitted from the second light source and reflected by the half prism on a same axis, and a second illumination beam, which is obtained by combining a beam emitted from the first light source and reflected by the half prism with a

beam emitted from the second light source and passing through the half prism on a same axis, are made incident into the fly-eye lens as being inclined symmetrically with each other with respect to the optical axis of illumination optical system.

1 / 1 LGST - ©EPO
PN - US5991009 A 19991123 [US5991009]
AP - US12762598 19980803 [1998US-0127625]
ACT - 20010227 US/CC-A
CERTIFICATE OF CORRECTION

20020611 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 20011121

20031028 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 20030630

20040608 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 20030630

UP - 2004-25

1 / 1 CRXX - ©CLAIMS/RRX
AN - 3242719
PN - 5,991,009 A 19991123 [US5991009]
PA - Nikon Corp JP
PT - E (Electrical)
ACT - 20011121 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20020611
REISSUE REQUEST NUMBER: 09/989470
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2818

Reissue Patent Number:

20030630 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20031028
REISSUE REQUEST NUMBER: 10/608212
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2851

Reissue Patent Number:

20030630 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20040608
REISSUE REQUEST NUMBER: 10/608212
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2818

Reissue Patent Number:

UP - 2001-09

UACT- 2004-06-08

Search statement 2

Query/Command : fam us5991009/pn

1 Patent Groups
** SS 2: Results 6

Search statement 3

Query/Command : famstate nonstop

1 / 6 PLUSPAT - @QUESTEL-ORBIT - image
PN - JP6349710 A 19941222 [JP06349710]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) LIGHTING OPTICAL DEVICE
PA - (A) NIPPON KOGAKU KK
PA0 - (A) NIKON CORP
IN - (A) NISHI TAKECHIKA
IC - (A) G02B-027/00 G03F-007/20 H01L-021/027
PN2 - JP3291839 B2 20020617 [JP3291839]
STG2- (B2) Grant. Pat. With A from 2500000 on
IC2 - (B2) G03F-007/20 H01L-021/027
AP - JP14057993 19930611 [1993JP-0140579]
PR - JP14057993 19930611 [1993JP-0140579]
EC - G03F-007/20T14
G03F-007/20T16

2 / 6 PLUSPAT - @QUESTEL-ORBIT - image
PN - JP7135133 A 19950523 [JP07135133]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) OPTICAL ILLUMINATION EQUIPMENT
PA - (A) NIPPON KOGAKU KK
PA0 - (A) NIKON CORP
IN - (A) NISHI TAKECHIKA; SHIRAISHI NAOMASA
IC - (A) G03B-027/32 G03F-007/20 H01L-021/027
AP - JP14463493 19930616 [1993JP-0144634]
PR - JP14463493 19930616 [1993JP-0144634]
EC - G03F-007/20T14
G03F-007/20T16

3 / 6 PLUSPAT - @QUESTEL-ORBIT - image
PN - JP6310396 A 19941104 [JP06310396]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) PROJECTION ALIGNER
PA - (A) NIPPON KOGAKU KK
PA0 - (A) NIKON CORP
IN - (A) SHIRAISHI NAOMASA; NISHI TAKECHIKA
IC - (A) G03B-027/32 G03F-007/20 H01L-021/027
PN2 - JP3339593 B2 20021028 [JP3339593]
STG2- (B2) Grant. Pat. With A from 2500000 on

IC2 - (B2) G03F-007/20 H01L-021/027
AP - JP9593093 19930422 [1993JP-0095930]
PR - JP9593093 19930422 [1993JP-0095930]
EC - G03F-007/20T14
G03F-007/20T16

4 / 6 PLUSPAT - ©QUESTEL-ORBIT - image
PN - US5991009 A 19991123 [US5991009]
STG - (A) United States patent
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PCL - ORIGINAL (O) : 355070000; CROSS-REFERENCE (X) : 355067000
355069000 359619000
DT - Basic

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PN - US5991009 A 19991123 [US5991009]
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REISSUE APPLICATION FILED
EFFECTIVE DATE: 20030630
UP - 2004-25

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PN - US5815248 A 19980929 [US5815248]
STG - (A) United States patent
TI - (A) Illumination optical apparatus and method having a wavefront
splitter and an optical integrator
PA - (A) NIPPON KOGAKU KK (JP)
PAO - Nikon Corporation, Tokyo [JP]

12/22/04

US 5,991,009

09/127625

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EC - G03F-007/20T12
G03F-007/20T14
G03F-007/20T16
PCL - ORIGINAL (O) : 355071000; CROSS-REFERENCE (X) : 355067000
355068000 355069000 355070000 359619000
DT - Basic

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PN - US5815249 A 19980929 [US5815249]
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IN - (A) SHIRAISHI NAOMASA (JP); NISHI KENJI (JP)
IC - (A) G03B-027/72
AP - US94028897 19970930 [1997US-0940288]
PR - US94028897 19970930 [1997US-0940288]
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359619000
DT - Basic